

Re: JP-Patent Appln. 2006-549972: Cited Reference 4

METHOD FOR CONTINUOUS CASTING OF CHROMIUM-CONTAINING MOLTEN STEEL HAVING EXCELLENT INTERNAL DEFECT RESISTANCE

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Applicant(s): NIPPON STEEL CORP +

Classification:

- **international:** B22D11/00; B22D11/16; B22D11/20; B22D11/22; B22D11/00; B22D11/16; B22D11/20; B22D11/22; (IPC1-7): B22D11/00; B22D11/16; B22D11/20; B22D11/22

- **European:**

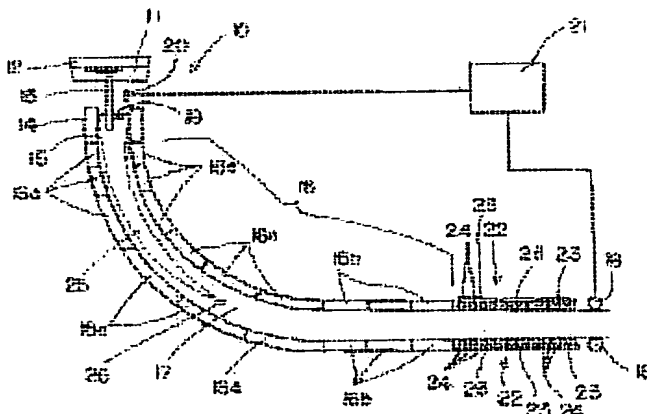
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Abstract of JP 11192539 (A)

PROBLEM TO BE SOLVED: To prevent the occurrence of the internal crack of a slab accompanying rolling reduction and the segregation, etc., by center porosity, loose structure and molten steel flow by setting the solidification completion point of the slab within curving supporting segments.

SOLUTION: The Cr-contg. molten steel 11 is regulated to a temp. higher by 10 to 20 deg.C than a liquidus temp. and is poured into a casting mold 14. The primary cooling by the casting mold 14 and the secondary cooling by the curving supporting segments 16a and horizontal supporting segments 16b are executed after the pouring to accelerate the solidification. The secondary cooling is executed by spraying water to the slag 17 from cooling water nozzles installed to these segments 16a, 16b. If the casting is executed at a casting rate of 0.2 to 1.4 m/min together with the water spraying of a suitable amt., an unsolidified part 25 and a solidified shell 15 are formed within the slab 17 passing the curving supporting segments 16a and a crater angle is formed as well with the solidification completion point 26 as a start point. As the unsolidified part 25 is subsequently progressed in a drawing direction, the solidification progresses and arrives at the solidification completion point 26 and the entire part of the slab 17 solidifies.



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